

What is claimed is:

1. A control apparatus for controlling a motor with a movable part, comprising:

locking means disposed adjacent to the motor for locking the
5 movable part of the motor,

detecting means for detecting a position of the movable part
when the movable part is locked,

storage means for storing a locking position of the movable
part to be locked, and

10 malfunction detecting means electrically connected to the
detecting means and the storage means, said malfunction detecting
means determining that the locking means locks the movable part
at an abnormal position when a deviation between the position of
the movable part detected by the detecting means and the locking
15 position in the storage means is larger than a reference value.

2. A control apparatus according to claim 1, further comprising
an alarm for sending an alarm signal when the deviation between
the position of the movable part detected by the detecting means
20 and the locking position is larger than a predetermined
proportion of the reference value.

3. A control apparatus according to claim 1, further comprising
position estimating means electrically connected to the detecting
25 means and the storage means for estimating an estimated position
of the movable part of the motor.

4. A control apparatus according to claim 3, wherein said storage
means stores positions of the movable part when the locking means
30 locks the movable part at every predetermined time as the locking

position so that the estimating means estimates the estimated position of the movable part based on a time change in the locking position of the movable part stored in the storage means.

5 5. A control apparatus according to claim 4, further comprising an alarm for sending an alarm signal when a deviation between the estimated position and the locking position stored in the storage means is larger than a predetermined proportion of the reference value.

10 6. A control apparatus according to claim 1, further comprising time estimating means electrically connected to the detecting means and the storage means, said storage means storing positions of the locking means for every predetermined time as the locking
15 position, said estimating means estimating an estimated time when a deviation between the estimated position and the locking position stored in the storage means is larger than the reference value.

20 7. A control apparatus according to claim 6, further comprising an alarm for sending an alarm signal when the estimated time by the time estimating means is greater than a predetermined value.